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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,780	01/31/2000	Stefan Bahrenburg	GR 97 P 8073	3930

7590 04/08/2003

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Post Office Box 2480  
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EXAMINER

PEZZLO, JOHN

ART UNIT	PAPER NUMBER
2662	114

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TT

## Office Action Summary

Application No. 09/494,780	Applicant(s) Bahrenburg et al.
	Examiner John Pezzlo
Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on 11 Feb 2003

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4)  Claim(s) 1-15 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-4, 6, 9, and 11-15 is/are rejected.

7)  Claim(s) 5, 7, 8, and 10 is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All b)  Some\* c)  None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892)

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)

5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

6)  Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

I. Claims 1-4, 6, 9, and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato (US 5,511,068).

1. Regarding claims 1, 9, and 11 - Santo discloses a radio system which utilizes a TDMA structure and a CDMA code for each time slot (channel) so that multiple radios can communicate at the same time, refer to Figure 2 and column 5 lines 30 to 42. Santo discloses that multiple time slots (multiple channels) can be assigned to the same radio and each time slot can have a variable data rate, refer to Figure 2 and column 4 lines 44 to 67. Santo discloses that each time slot comprises a training sequence, refer to Figure 7 and column 9 lines 34 to 52.

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2. Regarding claim 2 - Santo discloses that the training sequence can be same for all the data connections, refer to column 7 lines 43 to 50.
3. Regarding claim 3 and 4 - Santo discloses that data for multiple channels is superimposed into each slot with equal weighting, refer to Figure 4 and column 5 lines 49 to 67.
4. Regarding claim 6 - Santo discloses that the data rate is variable being more data symbols for a higher rate and less data symbols for lower data rate in a given slot. Therefore with a fixed number of training symbols the mean power per symbol between the training and data symbols will be variable, refer to Figure 2 and column 4 lines 24 to 67 and column 5 lines 1 to 22.
5. Regarding claims 12 and 13 - Santo discloses that the training sequence is a midamble, refer to Figure 7 and column 9 lines 34 to 54.
6. Regarding claims 14 and 15 - Santo discloses that the code is a direct sequence individual spreading code, refer to Figure 3 and column 5 lines 4 to 22.

*Allowable Subject Matter*

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II. Claims 5, 7, 8, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 11 February 2003 have been fully considered but they are not persuasive.

1. Applicants argue that the reference, Sato, US 5,511,068, does not anticipate the claims 1-4, 6, 9, and 11-15. The applicants argue on pages 3 and 4 of the response that Sato does not have two data channels per connection, separate spreading codes per channel, and utilizing the same training sequence for each channel which is different from the training sequences from the other connections. The examiner respectfully disagrees. Sato discloses that the TDMA system utilizes separate time slots per connection wherein a time slot is a channel therefore two time slots is two channels per connection, refer to column 5 lines 30 to 42. Sato discloses that each channel (time slot) utilizes an individual spreading code, refer to Figures 2 and 3 and column 5 lines 4 to 23. Sato discloses that a unique training sequence is used per connection, same training sequence per channel, which is different from the training sequences used in the other connections, refer to Figure 7 and column 9 lines 18 to 52.

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***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (703) 306-5420. The examiner can normally be reached on Monday to Friday from 8:30 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C.

or faxed to:

(703) 872-9314

For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Receptionist (Sixth floor)  
Crystal Park 2  
2121 Crystal Drive  
Arlington, VA.

John Pezzlo

1 April 2003

*JP.*

  
HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600